

REMARKS

Responsive to the Office Action mailed on January 10, 2007 in the above-referenced application, Applicant respectfully requests amendment of the above-identified application in the manner identified above and that the patent be granted in view of the arguments presented. No new matter has been added by this amendment.

Present Status of Application

Claims 1-7 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Claims 1-7 are further rejected under 35 U.S.C. §103(a) as being unpatentable over Atkins (USPN 5399390, hereinafter "Atkins") in view of Moshrefzadeh et al (USPN 6077560, hereinafter "Moshrefzadeh") and Nakahara et al (US 2004/0004691, hereinafter "Nakahara").

In this paper, claim 1 is amended to recite that each groove comprises an intermediary step portion between a top and bottom thereof, and further clarify that a plurality of primary colors of red R, green G, blue B are jetted by the inkjet printing method into the grooves of the substrate to form color filtering layers. Support for the amendments can be found in, for example, Figs. 9-11 and the related description in the application. Claims 6-10 are canceled. Thus, on entry of this amendment, claims 1-5 remain in the application.

Reconsideration of this application is respectfully requested in light of the amendments and the remarks contained below.

Rejections Under 35 U.S.C. §112

Claims 1-7 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner asserts that deletion of the word "plastic" from the claims raises the issue of new matter because the specification does not support the scope or breadth of the term "substrate." Applicant respectfully disagrees.

The written description requirement for a claimed genus may be satisfied through sufficient description of a representative number of species. A "representative number of species" means that the species which are adequately described are representative of the entire genus. There may be situations where one species adequately supports a genus. See, e.g., *In re Rasmussen*, 650 F.2d 1212, 1214, 211 USPQ 323, 326-27 (CCPA 1981) (disclosure of a single method of adheringly applying one layer to another was sufficient to support a generic claim to "adheringly applying" because one skilled in the art reading the specification would understand that it is unimportant how the layers are adhered, so long as they are adhered). See MPEP 2163.05.

Similarly, in the instant Application, one skilled in the art reading the specification would understand that the material of the substrate is unimportant, so long as the other recited limitations are met. Thus, the term "plastic substrate" is sufficient to support the generic term "substrate."

Rejections Under 35 U.S.C. §103(a)

Claims 1-5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Atkins in view of Moshrefzadeh and Nakahara. To the extent that the grounds of the rejections may be applied to the claims now pending in this application, they are respectfully traversed.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

As amended, claim 1 recites a color filter manufacturing method, comprising the steps of providing a substrate with an extrusion method, the substrate having a plurality of grooves, each groove comprising an intermediary step portion between a top and bottom thereof; jetting a plurality of primary colors of red R, green G, blue B into the grooves of the substrate by inkjet printing method to form color filtering layers in the primary colors of R, G, B; jetting a black photo-resist liquid to the substrate by inkjet printing method and forming a black photo-resist thereon; and covering a plane passivation layer on the top surface of the substrate.

In the rejections, the Examiner relies upon a combination of Atkins, Moshrefzadeh, and Nakahara to teach the limitations of claim 1. In particular, the Examiner relies on Atkins to teach the steps of 1) providing a substrate having a plurality of grooves; and 2) filling primary colors into the groove by jetting. See page 3 of the office action. Moshrefzadeh and Nakahara are relied upon to teach inkjet printing resist onto a substrate.

Atkins teaches a liquid crystal display with a polymeric substrate. In Atkins, the alleged "grooves" are scalloped channels 36, 38, and 40. Disposed in each channel is a thin layer of transparent conductive material 50, 52 and 54, respectively. Disposed over the transparent conductive material are layers of cholestric liquid crystal material 66, 68 and 70, respectively. It is this cholestric liquid crystal material that the Examiner apparently identifies as the alleged color filtering layers of the claims.

As amended, claim 1 recites a step of providing a substrate with an extrusion method, the substrate having a plurality of grooves, each groove comprising an intermediary step portion between a top and bottom thereof. To the contrary, the channels in Atkins are scalloped shaped. Furthermore, this feature is not found in either Moshrefzadeh or Nakahara.

In addition, amended claim 1 recites a step of jetting a plurality of primary colors of red R, green G, blue B into the grooves of the substrate by inkjet printing method to form color filtering layers in the primary colors of R, G, B. To the contrary, Atkins teaches that the cholestric liquid crystal material is disposed in the channels after the substrates are bound together, but prior to sealing the edges thereof. In other words, the cholestric liquid crystal material is injected into the channels via openings at the edges. This differs from claim 1, which recites that the color filtering layers are formed by the inkjet printing method. Furthermore, given that the cholestric liquid crystal material is disposed in the channels *after* the substrates are bound together, any modification of the reference to jet the material by the inkjet printing method would require a substantial redesign of the entire method, if it is possible at all.

Finally, claim 3 recites that a surface area of the substrate around the groove is a rough surface. In the rejections, the Examiner refers to a number of passages and figures in Atkins to teach this limitation. See page 3, last two lines. On review of said passages and figures, it remains unclear where Atkins teaches or suggests this limitation. Applicant respectfully requests that the Examiner more clearly point out where in the reference(s) this limitation is purportedly disclosed.

It is therefore Applicant's belief that even when taken in combination, the prior art references relied upon by the Examiner do not teach or suggest all the limitations of at least claims 1 and 3. For at least this reason, a *prima facie* case of obviousness cannot be established in connection with these claims. Furthermore, as it is Applicant's belief that a *prima facie* case of obviousness is not established for claims 1 and 3, the Examiner's arguments in regard to the dependent claims are considered moot and are not addressed here. Allowance of claims 1-5 is respectfully requested.

Conclusion

The Applicant believes that the application is now in condition for allowance and respectfully requests so. The Commissioner is authorized to charge any additional fees that may be required or credit overpayment to Deposit Account No. **502447**.

Respectfully submitted,

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